

WAVDs under conditions as set forth below. We propose to add the rules for these devices in a new Section 74.870 in Part 74, Subpart H, Low Power Auxiliary Stations. WAVDs would be subject to complying with all rules in Subpart H, except where such requirements differ from those described below.

i. Eligibility, Status, and Licensing

93. We propose that motion picture and television producers, as defined in Section 74.801, be eligible to operate WAVDs.¹⁶² These entities are currently eligible to hold Low Power Auxiliary Station licenses.¹⁶³ Our proposal, therefore, would extend to all entities eligible to hold a Part 74 license, the opportunity to use WAVDs. The production industry and the broadcast industry rely on each other – one to produce content and the other to distribute content – and have a vested interest to operate in a manner that is mutually agreeable. We also propose to limit the use of WAVDs to production facilities or locations for use in producing material being filmed or taped for later showing on television broadcast stations. Thus, WAVDs could not be used for ENG operations or to assist with the production of live events. We note that broadcast entities have access to BAS spectrum at 2, 7, and 13 GHz to accomplish these types of communications. Additionally, we propose that WAVDs be excluded from operating under the rules for short-term operation used by other Part 74 licensees.¹⁶⁴ These restrictions are intended to minimize the possibility for interference similar to what Part 73 and Part 74 licensees have experienced from other co-channel operations in the vicinity of their operations, such as TV BAS and wireless microphones.

94. To further reduce the interference potential of these devices, we propose that WAVDs be authorized on a non-interference basis. Thus, WAVDs could not cause harmful interference to any existing or future allocated services operating in accordance with the Table of Allocations in Part 2 of the Commission's rules,¹⁶⁵ and WAVD users would be responsible for correcting any instance of harmful interference using any means necessary, up to and including shutting down the transmitter. We do not, however, propose to change the existing allocation of this spectrum for the broadcasting service (and land mobile in the 470-512 MHz band).¹⁶⁶ This proposal is consistent with the treatment of wireless microphones operating on the same spectrum.

95. Consistent with Section 301 of the Communications Act of 1934, as amended, we propose to require that WAVD users obtain a license from the Commission prior to operation.¹⁶⁷ Specifically, we propose that applicants use FCC Form 601 to apply for an WAVD license. As with wireless microphones, applicants would file FCC Form 601 Main Form and Schedule H - Technical Data Schedule for the Private Land Mobile and Land Mobile Broadcast Auxiliary Radio Services (Parts 90 and 74). We propose that, similar to other BAS licensees, the license term for a WAVD license be concurrent with the normal licensing period for TV broadcast stations located in the same area of

¹⁶² 47 C.F.R. § 74.801. These definitions refer to persons or organizations engaged in the production of motion pictures or television programs.

¹⁶³ 47 C.F.R. §§ 74.832(a)(4) and (5).

¹⁶⁴ See para. 50, *supra*. The short-term operation rule allows eligible entities to operate using BAS frequencies for up to 720 hours per year without an authorization from the Commission. See 47 C.F.R. § 74.24.

¹⁶⁵ 47 C.F.R. § 2.106.

¹⁶⁶ See proposed rule changes to Section 2.106, including revised language for Footnote NG115 in Appendix C.

¹⁶⁷ 47 U.S.C. § 301.

operation.¹⁶⁸ A WAVD licensee would not be geographically limited, subject only to the channel separation rules we would adopt. These licenses are normally issued for a period of eight years with the expiration date determined by the area of the country in which the station operates.¹⁶⁹ For applicants that propose to operate at various sites either regionally or nationally, the license period would be determined by the location of the applicant as indicated on FCC Form 601.¹⁷⁰ Further, we propose that a WAVD licensee be authorized to use any authorized frequency¹⁷¹ and to operate on as many frequencies simultaneously as necessary, subject to the limitations and the notification requirements described below.¹⁷² Finally, because of the limited eligibility we propose for WAVDs and the nature of their use, we propose that WAVD licenses be non-assignable and non-transferable. We request comment on all aspects of these proposals concerning eligibility, status and licensing.

ii. Authorized Frequencies

96. We propose to allow WAVDs to operate on unused television broadcast frequencies, subject to certain conditions. Specifically, we propose that WAVDs be authorized to use the 180-210 MHz band (corresponding to VHF-TV channels 8-12) and the 470-608 MHz and 614-698 MHz bands (corresponding to UHF-TV channels 14-36 and 38-51). We believe that WAVDs can effectively operate on this spectrum on a non-interference basis.

97. We are not proposing to allow WAVDs in the 174-180 MHz and 210-216 MHz bands (TV channels 7 and 13) because these bands are adjacent to bands which accommodate the Low Power Radio Service (LPRS), which supports auditory assistance devices and health care aids that operate pursuant to Section 90.265 of our rules.¹⁷³ Because there are a large number of channels available, these restrictions should not impair the utility of this new service. We note that the nomadic nature of LPRS and WAVD operations could make it difficult to prevent interference between these services. In addition, by not allowing WAVDs to operate on these channels, we also would protect from interference the Navy's SPASUR radar system, which operates in the 216.88-217.08 MHz band.¹⁷⁴

¹⁶⁸ 47 C.F.R. § 74.15.

¹⁶⁹ 47 C.F.R. § 73.1020.

¹⁷⁰ For BAS licensees, the location used for determining license period is the State of primary operation if there is no associated parent station or, if an associated parent station exists, the State of the principal community served by that station.

¹⁷¹ See paras. 96-99, *infra*.

¹⁷² See para. 107, *infra*.

¹⁷³ 47 C.F.R. § 90.265.

¹⁷⁴ The SPASUR radar system is located in the southern United States and consists of three high power transmitters and six receiver locations. These operations are protected indefinitely for non-Government FS and mobile services by footnote US229. See 47 C.F.R. § 2.106 Note US229. Additionally, we note that pursuant to the Balanced Budget Act of 1997, the entire 216-220 MHz band was designated by NTIA for transfer to non-Government use and subject to licensing by competitive bidding. See Pub. L. 105-33, 111 Stat. 251 (1997). The use of the 216-220 MHz band is being examined in ET Docket No. 00-221. See In the Matter of Reallocation of the 216-220 MHz, 1390-1395 MHz, 1427-1429 MHz, 1429-1432 MHz, 1432-1435 MHz, 1670-1675 MHz, and 2385-2390 MHz Government Transfer Bands, ET Docket No. 00-221, *Notice of Proposed Rule Making*, rel. Nov. 20, 2000.

98. We also find merit in the comments that assert that existing and future land mobile operations, including public safety communication systems, must be protected from potential interference from WAVDs. In accordance with AMPTP's reply comments, we propose to specifically exclude WAVDs from using land mobile radio channels, in the 470-512 MHz band (TV channels 14-20) in cities where such use is authorized by the rules.¹⁷⁵ Additionally, we propose to restrict the use of WAVDs on channels adjacent to public safety channels in those cities.¹⁷⁶ In the 470-512 MHz private land mobile bands, all channels are authorized from a common general access pool of frequencies, so a public safety entity can potentially use any of the allocated TV channels. Therefore, all TV channels listed in Section 90.303 of our rules will be excluded from WAVD use at the locations listed in that rule.¹⁷⁷ In addition, we propose that 482-488 MHz (TV channel 16), which New York City public safety users are using under a waiver, also be excluded from WAVD usage in that area.¹⁷⁸ Another exclusion we propose is 476-494 MHz (TV channels 15-17) in the Gulf of Mexico, which is used by the Private Land Mobile Radio Service¹⁷⁹ and for communication links in the Offshore Radiotelephone Service (ORS) under Part 22 of our rules.¹⁸⁰ Finally, we propose to exclude 488-494 MHz (TV channel 17) in Hawaii, which is used for common carrier control and repeater stations for point-to-point inter-island communications.¹⁸¹ The frequencies on which we propose to excluded WAVD use are summarized in the table below. We note that our proposals would allow WAVDs to operate on channels listed in the table when they are sufficiently removed from the listed cities.¹⁸²

Area	Excluded Frequencies (MHz)	Excluded Channels
Boston, MA.....	470-494	14-17
Chicago, IL	470-488	14-16
Cleveland, OH (WAVDs may operate until further order from the Commission)	470-494	14-17
Dallas/Fort Worth, TX.....	476-494	15-17
Detroit, MI (WAVDs may operate until further order from the Commission)	470-494	14-17
Hawaii	488-494	17

¹⁷⁵ 47 C.F.R. Part 90, Subpart L. *See also*, 47 C.F.R. §§ 22.591, 22.621, 22.651, and 22.1007.

¹⁷⁶ *See* para. 104, *infra*. for proposals regarding the distance that WAVDs must maintain from cities in which land mobile radio operations are present.

¹⁷⁷ 47 C.F.R. § 90.303. Although Detroit, MI and Cleveland, OH are listed in Section 90.303, that rule specifies that the allocated frequencies are not available until further Order from the Commission. As in those rules, we propose to exclude WAVD operation in those cities. We will, however, list these cities in the rules and use a footnote to show the exclusion. Additionally, such footnote will indicate that WAVDs may not operate in those cities until the Commission, through an Order, states otherwise.

¹⁷⁸ *See* Note 90, *supra*. *See* para. 104, *infra*. for proposals regarding the distance that WAVDs must maintain from cities in which land mobile radio operations are present.

¹⁷⁹ 47 C.F.R. § 90.315.

¹⁸⁰ 47 C.F.R. Part 22, Subpart I.

¹⁸¹ 47 C.F.R. §§ 2.106, Note NG127 and 22.603.

¹⁸² *See* para. 104, *infra*. for proposals regarding the distance that WAVDs must maintain from cities in which land mobile radio operations are present.

Area	Excluded Frequencies (MHz)	Excluded Channels
Houston, TX	482-500	16-18
Los Angeles, CA.....	470-494	14-17
	500-518	19-21
Miami, Fl	470-482	14-15
New York/ N.E. New Jersey.....	470-494	14-17
Philadelphia, PA	494-518	18-21
Pittsburgh, PA.....	470-482	14-15
	488-506	17-19
San Francisco/Oakland, CA	476-500	15-18
Washington D.C./MD/VA.....	482-506	16-19

99. We also propose that WAVDs be excluded on a nationwide basis from operating in the 608-614 MHz band (TV channel 37) to protect radio astronomy operations. This proposal is in accordance with the Table of Allocations in Part 2 of the Commission's rules which specifies that no stations will be authorized to transmit in that band.¹⁸³ We also note that the Commission has recently authorized the use of medical telemetry in the 608-614 MHz band¹⁸⁴ and this exclusion will protect those operations. Finally, we propose that WAVDs not be allowed to use channels above 698 MHz (channel 51) in the UHF-TV band. This proposal recognizes that part of the TV band above channel 51 has been and more will be reallocated to uses other than broadcasting.¹⁸⁵ We seek comment on all aspects of these proposals on authorized frequencies.

iii. Technical and Operational Requirements

100. In addressing technical and operational requirements for WAVDs, our proposals are designed to protect other users of the TV bands. As a starting point, we note AMPTP's statement that the transmission distance for a WAVD only needs to be 300 meters and that signal propagation should be limited to this distance. Thus, AMPTP asks that we allow WAVDs to transmit with a maximum ERP of one watt and with antennas up to ten meters above ground.¹⁸⁶ They further propose that the amount of power be inversely related to antenna height (*i.e.*, the higher the antenna, the lower the power). We believe that one watt ERP is excessive considering the limited range of these devices and instead propose to limit the ERP of WAVDs to 250 milliwatts. This should provide adequate power for reliable transmissions up to 300 meters. Additionally, the lower ERP limit will provide more protection to other users of the TV band. To further minimize the potential for harmful interference by preventing the ability of users to use high gain antennas, we also propose to require that the transmitting devices contain a permanently attached antenna. We also seek comment on whether an alternative limit on power levels may be more appropriate. We seek answers to the following:

¹⁸³ 47 C.F.R. § 2.106, Note US246.

¹⁸⁴ See Amendment of Parts 2 and 95 of the Commission's Rules to Create a Wireless Medical Telemetry Service, ET Docket No. 99-255, *Report and Order*, 15 FCC Rcd. 11,206 (2000).

¹⁸⁵ See para. 59, *supra*.

¹⁸⁶ AMPTP reply comments at 2; AMPTP Petition at 5.

- What signal strength is necessary at the WAVD receiver to ensure reliable use?
- Is 250 milliwatts ERP adequate to ensure this signal strength at 300 meters or is a different ERP more appropriate?
- What assumptions are being used in making this calculation?
- How is the signal strength affected by antenna height?
- Should the rules specify a relationship between antenna height and power?

101. AMPTP asks that we allow WAVDs to operate with a bandwidth up to 6 megahertz to provide sufficient operating flexibility.¹⁸⁷ Because they state that these devices will transmit audio, video, and time information either in analog or digital format, this appears to be a reasonable request. Further, we believe that producers can benefit from low equipment costs by taking advantage of economies of scale by using existing NTSC or newer DTV equipment. Accordingly, we propose to allow WAVDs to operate with a bandwidth up to 6 MHz, limited to transmitting on a single TV channel (*i.e.*, WAVD transmissions may not overlap the TV channel edge). To ensure compliance with this requirement, we propose that WAVDs be subject to the same emission limitations that we are proposing for other TV BAS transmitters, discussed above.¹⁸⁸

102. We also propose that all WAVD transmitters be authorized for use under the certification procedures of Part 2 of our rules.¹⁸⁹ This third-party review process will insure that these transmitters are designed to the parameters ultimately adopted.¹⁹⁰ We seek comment on whether we should authorize these low power devices under declaration of conformity (DOC) procedures.¹⁹¹ The DOC process would allow manufacturers to declare compliance with our requirements, provided the equipment is tested for compliance using an accredited laboratory and is properly labeled.¹⁹² Because these are new devices, we do not believe that use of verification procedures, in which no independent third-party testing is required, is appropriate.

103. AMPTP proposed that WAVDs be authorized to operate with a separation distance of at least 120 kilometers from an authorized user of the TV band to avoid interference.¹⁹³ This distance corresponds to Grade B contour of a TV station operating in the upper VHF-TV band with maximum power.¹⁹⁴ We note that wireless microphones, which may use up to 50 milliwatts and 250 milliwatts output power in the VHF-TV and UHF-TV bands, respectively,¹⁹⁵ maintain distances of up to 129 kilometers from TV broadcasting stations,¹⁹⁶ a distance slightly larger than the Grade B contour. Although the ERP we are proposing for WAVDs is higher than that authorized for wireless microphones

¹⁸⁷ AMPTP Petition at 5.

¹⁸⁸ See paras. 25-30, *supra* for our proposals regarding the TV BAS emission mask.

¹⁸⁹ 47 C.F.R. Part 2, Subpart J.

¹⁹⁰ 47 C.F.R. § 2.952.

¹⁹¹ *Id.*

¹⁹² 47 C.F.R. §§ 2.1073, 2.1074, and 2.1077

¹⁹³ AMPTP Petition at 4.

¹⁹⁴ 47 C.F.R. § 73.683.

¹⁹⁵ 47 C.F.R. § 74.861(e)(1).

¹⁹⁶ 47 C.F.R. § 74.802(b). See also, Note 141 *supra*.

operating in the upper VHF TV band,¹⁹⁷ we also have proposed to allow WAVDs to operate with a bandwidth of 6 megahertz compared to the maximum 200 kilohertz authorized for wireless microphones.¹⁹⁸ Therefore, the energy radiated from a WAVD will be spread over a much larger bandwidth than that used for wireless microphones resulting in less signal energy in any given portion of the bandwidth. In fact, there is a difference of 14.8 dB between the two bandwidths. This difference coupled with the ability of wireless microphones to avoid sensitive portions of the TV signal due to their smaller bandwidth¹⁹⁹ should offset the difference in power levels between the two devices.²⁰⁰ Thus, similar to the rules for wireless microphones, we propose that WAVDs maintain 129 kilometers separation from TV broadcasting stations, including low power TV stations and translator stations operating on the same frequency. To protect TV stations, we believe that this distance is more appropriate than the 120 kilometer distance proposed by AMPTP because it requires that these devices operate completely outside the Grade B contour, whereas the 120 kilometer distance would allow WAVDs to be located at the edge of the Grade B contour with the potential for generating signals into it. We seek comment on whether this distance is appropriate to protect both NTSC and DTV signals from harmful interference.²⁰¹ We will not require a minimum separation distance from WAVDs to other TV BAS operations on the TV channels. We believe that the directional nature of the TV BAS operations, coupled with our proposals for notification prior to operation, described below, are adequate to protect TV BAS operations.²⁰²

104. To protect land mobile stations operating in the 470-512 MHz band, we have proposed above to require WAVDs to maintain at least 6 MHz frequency separation when operating in the same area.²⁰³ To further define this protection criteria, we will define the size of the area in which WAVD co-channel operation will not be allowed.²⁰⁴ For operation in designated cities, land mobile base stations can be located within 80 kilometers of the coordinates listed in Sections 22.657 and 90.303, respectively,²⁰⁵ and mobile stations must limit operations to within 48 kilometers of the base station.²⁰⁶

¹⁹⁷ The 250 milliwatts proposed for WAVDs is 7 dB more than the 50 milliwatts allowed for wireless microphones in the VHF-TV band.

¹⁹⁸ 47 C.F.R. § 74.861(e)(5).

¹⁹⁹ An NTSC television signal contains a picture carrier at 1.25 MHz from the lower band edge, a chrominance subcarrier at 3.579545 MHz above the picture carrier, and a sound center frequency 0.25 MHz from the upper band edge. Because wireless microphones have only a 200 kHz bandwidth, they can tune to operating frequencies that avoid overlapping their bandwidth with these sensitive portions of the TV signal. A WAVD, which operates with 6 MHz bandwidth, will not be able to avoid transmitting over these portions of the TV signal.

²⁰⁰ See Note 197, *supra*.

²⁰¹ We recognize that the separation distance requirement for wireless microphones on which we are basing the WAVD proposal was developed to avoid causing interference to NTSC signals.

²⁰² See para. 107, *infra*.

²⁰³ See para. 97, *supra*.

²⁰⁴ In this context, we define co-channel to encompass any overlap between the bandwidth of a WAVD and a land mobile station. For example, a WAVD operating in the 470-476 MHz band (TV channel 14) is considered co-channel with any land mobile station operating on any frequency within that same band.

²⁰⁵ 47 C.F.R. §§ 22.657, 90.303.

²⁰⁶ 47 C.F.R. §§ 22.657, 90.305.

Thus, any protection criteria must account for mobile stations operating up to 128 kilometers away from the listed coordinates. Therefore, we propose to require WAVDs to maintain a separation of at least 200 kilometers from the coordinates listed in Section 90.303 when operating co-channel (*i.e.*, at least 52 kilometers away from the nearest mobile station). We note that this proposed separation distance between WAVDs and land mobile stations is less than that proposed for TV stations. However, we believe that land mobile receivers do not require the same level of protection as television receivers because land mobile receivers are more robust than television receivers (*i.e.*, they operate with up to 25 kilohertz bandwidths as opposed to 6 megahertz for TV and therefore allow less energy to pass through the receiver).

105. For operations by the ORS and PLMRS in the Gulf of Mexico in the 476-494 MHz band, the Commission's rules stipulate various zones in which each allocated TV channel can be used.²⁰⁷ ORS and PLMRS stations are mostly used for point-to-point or point-to-multipoint operations, which do not require the same level of protection as mobile services due to the directional nature of fixed transmissions. Communications with mobile stations in the Gulf of Mexico are generally limited to stations within the gulf (*e.g.*, stations on boats or aircraft) or to stations on the shore. Therefore, we propose to exclude WAVDs from operating within 52 km of the Gulf of Mexico in the 476-494 MHz band. This would provide the same level of protection as we proposed to provide to mobile stations operating within U.S. cities. We note that our proposal requires this separation distance on all channels authorized for use in the Gulf, even though each channel is only used in a specific zone. We believe that the simplicity of not designating the specific channels that cannot be used in each zone outweighs allowing the use of a few more channels in this limited area, given that there are still plenty of other channels available for WAVD operations in this area. We also propose to exclude WAVDs from operating within 52 km of Hawaii in the 488-494 MHz band. We seek comment on whether these proposals are sufficient to protect land mobile stations or conversely whether they are overly restrictive such that they inhibit the use of WAVDs. Commenters who believe that our proposals are overly restrictive should address the level of protection necessary to protect land mobile operations.

106. The proposals set forth above are designed to maximize the number of channels and areas in which WAVDs can operate while at the same time protecting broadcasters and land mobile users from harmful interference. Subject to the proposed limitations, WAVDs would have use of VHF-TV channels 8-12 and UHF-TV channels 22-36 and 38-51 nationwide. For UHF-TV channels 14-21 our proposals would prohibit WAVD use on certain channels in and around a limited number of cities, but allow their use across the rest of the United States. As an alternative, to protect land mobile users, we could prohibit WAVDs from operating on UHF-TV channels 14-21 altogether. Such an option would limit the number of available operating channels for WAVDs at most locations nationwide. However, it would also create a simpler regulatory framework. We seek comment on this option. Specifically, what is the effect of prohibiting the use of WAVDs on UHF-TV channels 14-21 on their ability to find vacant channels on which to operate in various areas?

107. As suggested by AMPTP, we propose that prior to operating at a specific location, a WAVD licensee must notify the local broadcast coordinator in the area where they wish to operate.²⁰⁸ In this regard, we note that SBE maintains a list of local coordinators on their web site at <http://www.sbe.org>. Alternatively, in areas where there may not be a local coordinator, we propose that a WAVD licensee must notify any TV station within 161 kilometers (100 miles) operating on channels adjacent to the WAVD. We believe that notification rather than full coordination is sufficient for these

²⁰⁷ 47 C.F.R. §§ 22.1001, 90.315.

²⁰⁸ AMPTP reply comments at 2.

devices due to their low ERP and limited operating range. We are inclined to agree with AMPTP that the requirements adopted in WT Docket No. 99-168 can be used as the basis for our proposal.²⁰⁹ We propose slight modifications to the procedures adopted in that proceeding to reflect differences in the services (*i.e.*, WAVDs need notification for temporary use at specific locations with the notification being accomplished by a local independent coordinator, as opposed to land mobile coordination which is usually done for long-term or permanent use by a national level coordinator). Specifically, we propose that each notification include the proposed frequency or frequencies, location, antenna height, type of emission, effective radiated power, intended dates of operation, and licensee contact information. Because we have proposed to limit use of WAVDs to scheduled productions, we believe that it is reasonable to require that these notifications be made at least ten business days prior to the date that WAVD use is required. We believe that this provides adequate time for the coordinator²¹⁰ to respond to the applicant. We further propose that failure of a coordinator to respond to such a notification will be interpreted as an approval. Applicants should be aware that we are proposing that coordinators have the full ten days to respond to a coordination request and should plan to initiate notification as far in advance as possible to avoid production delays. We believe that our proposal strikes a reasonable balance between the requirements of producers and the needs of the coordinator to study the notification and provide comments as necessary. We propose that the coordinator's recommendation regarding the specific operation of a particular WAVD – whether it can operate as proposed or with suggested modifications to operating parameters – is to be followed by the WAVD licensee. Of course, licensees may appeal to the Commission if they disagree with a coordinator. We propose that in these instances, the licensee bear the burden of proof in overturning the coordinator's recommendation. The requirements proposed herein would ensure that WAVDs operate in a manner that will minimize the potential for harmful interference. We decline to propose specific technical guidelines in order to provide coordinators a large degree of latitude to tailor requirements to specific local operating environments. Our experience has been that coordinators have performed their duties with a high degree of professionalism and integrity and we believe that the coordinators will continue to act in this manner. We seek comment on our notification proposals. Specifically, do we need to require that additional information be provided? Is the ten-day period for a coordinator to respond to a request enough time or too much time? Should specific technical criteria, such as C/I ratios, be adopted?

108. Additionally, we propose that WAVD licensees be subject to the station identification requirements of Section 74.882,²¹¹ which require that stations transmit station identification at the beginning and end of each period of operation at a single location.²¹² As with wireless microphones, we believe that even with the low power levels that WAVDs will use, such a requirement is necessary so that if any interference is experienced, it can readily be traced back to its source and can be mitigated. We seek comment on these additional aspects of proposed technical operational requirements for WAVDs.

109. Finally, to ensure that users understand the proper operation and requirements of WAVDs, we propose that manufacturers include certain information in the product literature that is included with the device. Section 302 of the Communications Act provides the Commission with

²⁰⁹ See Note 153, *supra*.

²¹⁰ In this context and throughout this section, the term coordinator includes broadcasters directly notified by an applicant in areas where there is not a local coordinator.

²¹¹ 47 C.F.R. § 74.882. This rule currently includes only those transmitters used for voice transmissions.

²¹² *Id.* A period of operation is defined may consist of a continuous transmission or intermittent transmissions pertaining to a single event.

authority to make reasonable regulations governing the interference potential of devices which emit radio frequency energy.²¹³ Under this authority, for example, devices authorized under Part 15 of our rules are required to display information regarding interference, or have that information included in the product manual.²¹⁴ For WAVDs, we propose that the product literature supplied to the user include the statements explaining that an FCC license is needed prior to operating,²¹⁵ explaining that operation may not cause interference to TV reception,²¹⁶ and identifying the intended uses of the device.²¹⁷ In order to provide flexibility to manufacturers, we do not propose specific language or placement of this information, so long as it is included with the device. We believe that providing this information with the product literature will minimize the potential for these devices to proliferate to unauthorized users and cause interference to TV. We seek comment on this proposal. Commenters should address whether the required information is sufficient or if more or less information should be required.

IV. CONCLUSION

110. By the proposals advanced above, we seek to update the Broadcast Auxiliary Service rules in Part 74 of the Commission's rules. Additionally, we have advanced proposals designed to provide compatibility between Broadcast Auxiliary Services, the Cable Television Relay Service, and Fixed Service Microwave systems operating on shared spectrum. Licensees and equipment manufacturers will gain greater technical flexibility and more efficiency in the licensing process by the proposals we advance here. In addition, our proposals will assist the broadcast industry with the transition to digital TV. Additionally, we propose to allow Wireless Assist Video Devices to operate on certain VHF and UHF TV spectrum, thereby increasing spectrum efficiency and promoting equipment, which will serve increase safety at production sites as well as lower film and television production costs.

V. PROCEDURAL MATTERS

A. Regulatory Flexibility Act

111. As required the Regulatory Flexibility Act,²¹⁸ the Commission has prepared an Initial Regulatory Flexibility Analysis (IRFA) of the possible impact on small entities of the proposals suggested in this document. The IRFA is set forth in Appendix B. Written public comments are requested on the IRFA. These comments must be filed in accordance with the same filing deadlines as comments filed in this *Notice of Proposed Rule Making* ("Notice"), and must have a separate and distinct heading designating them as responses to the IRFA. The Commission's Consumer Information Bureau, Reference Information Center, shall send a copy of this *Notice*, including the IRFA, to the Chief Counsel for Advocacy of the Small Business Administration in accordance with the Regulatory Flexibility Act.²¹⁹

²¹³ See 47 U.S.C. § 302.

²¹⁴ 47 C.F.R. § 15.19.

²¹⁵ For example, "Not authorized to operate without an FCC license."

²¹⁶ For example, "Operation is subject to the condition that a local frequency coordinator be notified prior to use and that the device does not cause interference to the reception of TV signals."

²¹⁷ For example, "Operation is intended only for the production of TV program material and motion pictures."

²¹⁸ See 5 U.S.C. § 603.

²¹⁹ See 5 U.S.C. § 603(a).

B. *Ex Parte* Rules – Permit-But-Disclose Proceeding

112. This is a permit-but-disclose notice and comment rulemaking proceeding. *Ex parte* presentations are permitted, except during the Sunshine Agenda period, provided they are disclosed as provided in the Commission's rules.²²⁰

C. Paperwork Reduction Analysis

113. This *Notice of Proposed Rule Making* contains either a proposed or modified information collection. As part of our continuing effort to reduce paperwork burdens, we invite the general public and the Office of Management and Budget (OMB) to take this opportunity to comment on the information collections contained in this *Notice of Proposed Rule Making*, as required by the Paperwork Reduction Act of 1995.²²¹ Public and agency comments are due at the same time as other comments on this *Notice of Proposed Rule Making*; OMB comments are due 60 days from date of publication of this *Notice of Proposed Rule Making* in the Federal Register. Comments should address:

- Whether the proposed collection of information is necessary for the proper performance of the functions of the Commission, including whether the information shall have practical utility;
- The accuracy of the Commission's burden estimates;
- Ways to enhance the quality, utility, and clarity of the information collected; and
- Ways to minimize the burden of the collection of information on the respondents, including the use of automated collection techniques or other forms of information technology.

114. Written comments by the public on the proposed and/or modified information collections are due **[30 days after publication in the Federal Register]**. Written comments must be submitted by the Office of Management and Budget (OMB) on the proposed and/or modified information collections on or before **[60 days after publication in the Federal Register]**. In addition to filing comments with the Secretary, a copy of any comments on the information collections contained herein should be submitted to Judy Boley, Federal Communications Commission, 445 12th Street, SW, Washington, D.C. 20554, or via the Internet to <jboley@fcc.gov>. Furthermore, a copy of any such comments should be submitted to Virginia Huth, OMB Desk Officer, 10236 New Executive Office Building, 725 Seventeenth Street, N.W., Washington, D.C. 20503, or via the Internet to <vhuth@omb.eop.gov>.

D. Comment Dates

115. Pursuant to Sections 1.415 and 1.419 of the Commission's rules, interested parties may file comments on or before **[30 days after publication in the Federal Register]** and reply comments on

²²⁰ See, generally, 47 C.F.R. §§ 1.1202, 1.1203, and 1.1206.

²²¹ See Pub. L. No. 104-13.

or before [60 days after publication in the Federal Register].²²² Comments may be filed using the Commission's Electronic Comment Filing System (ECFS), or by filing paper copies.²²³

116. Comments filed through the ECFS can be sent as an electronic file via the Internet to <<http://www.fcc.gov/e-file/ecfs.html>>. Generally, only one copy of an electronic submission must be filed. If multiple docket or rule making numbers appear in the caption of this proceeding, however, commenters must transmit one electronic copy of the comments to each docket or rulemaking number referenced in the caption. In completing the transmittal screen, commenters should include their full name, Postal Service mailing address, and the applicable docket or rule making number. Parties may also submit an electronic comment by Internet e-mail. To get filing instructions for e-mail comments, commenters should send an e-mail to <ecfs@fcc.gov>, and should include the following words in the body of the message, "get form <your e-mail address>." A sample form and directions will be sent in reply. Or you may obtain a copy of the ASCII Electronic transmittal Form (FORM-ET) at <http://www.fcc.gov/efile/email.html>.

117. Parties who choose to file by paper must file an original and four copies of each filing. If more than one docket or rule making number appear in the caption of this proceeding, commenters must submit two additional copies for each additional docket or rulemaking number. All filings must be sent to the Commission's Secretary, Magalie Roman Salas, Office of the Secretary, Federal Communications Commission, 445 Twelfth Street, S.W., TW-A325, Washington, D.C. 20554. One copy of all filings should also be sent to the Commission's duplicating contractor, International Transcription Services, Inc., 1231 Twentieth Street, N.W., Washington, D.C. 20036, (202) 857-3800, FAX (202) 857-3805.

118. Parties who choose to file by paper should also submit their comments on diskette. Such a submission should be on a 3.5-inch diskette formatted in an IBM compatible format using Microsoft Word or compatible software. The diskette should be accompanied by a cover letter and should be submitted in "read only" mode. The diskette should be clearly labeled with the commenter's name, proceeding (including the lead docket number, type of pleading (comment or reply comment), date of submission, and the name of the electronic file on the diskette. The label should also include the following phrase "Disk Copy – Not an Original." Each diskette should contain only one party's pleading, preferably in a single electronic file. In addition, commenters must send diskette copies to the Commission's copy contractor, International Transcription Service, Inc., 1231 20th Street, NW., Washington, D.C. 20037.

119. Documents filed in this proceeding will be available for public inspection and copying during regular business hours in the FCC Reference Information Center, Portals II, 445 Twelfth Street, S.W., Room CY-A257, Washington, D.C. 20554 and will be placed on the Commission's internet site. Copies of comments and reply comments are also available through the Commission's duplicating contractor, International Transcription Services, Inc.

E. Alternative Formats

120. Alternative formats (computer diskette, large print, audio cassette, and Braille) are available to persons with disabilities by contacting Martha Contee at (202) 418-0260, TTY (202) 418-2555, or via e-mail to mcontee@fcc.gov. This *Notice of Proposed Rule Making* can also be downloaded at <http://www.fcc.gov/oet>.

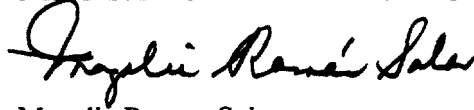
²²² 47 C.F.R. §§ 1.415, 1.419.

²²³ See Electronic Filing of Documents in Rulemaking Proceedings, GC Docket No. 97-113, *Report and Order*, 13 FCC Rcd 11322 (1998).

122. Accordingly, **IT IS ORDERED** that, pursuant to Sections 1, 4(i), 302, 303(f) and (r), 332, and 337 of the Communications Act of 1934, as amended, 47 U.S.C. §§ 1, 4(i), 154(i), 302, 303(f) and (r), 332, 337, this *Notice of Proposed Rule Making* in ET Docket No. 01-75 **IS ADOPTED**.

123. **IT IS FURTHER ORDERED** that the Commission's Consumer Information Bureau, Reference Information Division, **SHALL SEND** a copy of this *Notice of Proposed Rule Making*, ET Docket No. 01-75, including the Initial Regulatory Flexibility Analysis, to the Chief Counsel for Advocacy of the Small Business Administration.

FEDERAL COMMUNICATIONS COMMISSION



Magalie Roman Salas
Secretary

APPENDICES**APPENDIX A - List of Commenters****Commenters to the TIA Petition (RM-9418)****Comments:**

1. Alcatel, USA, Inc.
2. Society of Broadcast Engineers, Inc.
3. Digital Microwave Corporation
4. Harris Corporation
5. AirTouch Communications, Inc.
6. Andrew Corporation
7. Teledesic LLC

Reply Comments:

1. Alcatel, USA, Inc.
2. Fixed Point-to-Point Communications Section, Wireless Communications Division,
Telecommunications Industry Association

Commenters to the AMPTP Petition (RM-9856)**Comments:**

1. County of Los Angeles
2. National Association of Broadcasters
3. Phonic Ear
4. Society of Broadcast Engineers

Reply Comments:

1. Association of Motion Picture and Television Producers

APPENDIX B – Initial Regulatory Flexibility Analysis

1. As required by the Regulatory Flexibility Act (RFA),¹ the Commission has prepared this present Initial Regulatory Flexibility Analysis (IRFA) of the possible significant economic impact on small entities by the policies and rules proposed in this *Notice of Proposed Rule Making (NPRM)*. Written public comments are requested on this IRFA and must be filed by the deadlines for comments on the *Notice of Proposed Rule Making* provided above in paragraph 115. The Commission will send a copy of the *Notice of Proposed Rule Making*, including this IRFA, to the Chief Counsel for Advocacy of the Small Business Administration.² In addition, the Notice of Proposed Rule Making and IRFA (or summaries thereof) will be published in the Federal Register.³

A. Need for, and Objectives of, the Proposed Rules

2. This *Notice or Proposed Rule Making* presents a significant update to the Broadcast Auxiliary Service (BAS). Many of the proposals are intended to ease the transition from current analog equipment to the digital equipment that will be necessary to support digital TV. Additionally, this *NPRM* proposes to implement changes to streamline the licensing process and make the BAS licensing rules consistent with those used in the rest of the wireless services. These proposals pave the way for BAS to take full advantage of the Commission's Universal Licensing. This *NPRM* also seeks to implement changes that would make the rules consistent among similar services, such as BAS, fixed service microwave, and Cable Television Relay Service (CARS). Finally, the *NPRM* proposes to allow motion picture and television producers access to certain VHF and UHF TV channels for wireless video assist devices (WAVDs). WAVDs increase the safety of production sets and at the same time enable these groups to save money on production costs.

B. Legal Basis

3. This action is authorized under Sections 1, 4(i), 302, 303(f) and (r), 332, and 337 of the Communications Act of 1934, as amended, 47 U.S.C. §§ 1, 4(i), 154(i), 302, 303(f) and (r), 332, 337.

C. Description and Estimate of the number of Small Entities to Which the Proposed Rule Will Apply

4. The RFA directs agencies to provide a description of and, where feasible, an estimate of the number of small entities that may be affected by the proposed rules, if adopted.⁴ The RFA generally defines the term "small entity" as having the same meaning as the terms "small business," "small organization," and "small governmental jurisdiction." In addition, the term "small business" has the same meaning as the term "small business concern" under Section 3 of the Small Business Act, unless the Commission has developed one or more definitions that are appropriate for its activities.⁵ Under the Small business Act, a "small business concern" is one that: (1) is independently owned and operated; (2)

¹ See 5 U.S.C. § 603. The RFA, *see* 5 U.S.C. § 601 *et. seq.*, has been amended by the Contract With America Advancement Act of 1996, Pub. L. No. 104-121, 110 Stat. 847 (1996) (CWAAA). Title II of the CWAAA is the Small Business Regulatory Enforcement Fairness Act of 1996 (SBREFA).

² 5 U.S.C. § 603(a).

³ *Id.*

⁴ *Id.* at § 603(b)(3).

⁵ *Id.* at § 601(3).

is not dominant in its field of operation; and (3) satisfies any additional criteria established by the Small Business Administration (SBA).⁶

5. A small organization is generally "any not-for-profit enterprise which is independently owned and operated and is not dominant in its field."⁷ Nationwide, as of 1992, there were approximately 275,801 small organizations.⁸ The definition of "small governmental entity" is one with populations of fewer than 50,000.⁹ There are approximately 85,006 governmental entities in the nation.¹⁰ This number includes such entities as states, counties, cities, utility districts and school districts. There are no figures available on what portion of this number have populations of fewer than 50,000. However, this number includes 38,978 counties, cities and towns, and of those, 37,556, or ninety-six percent, have populations of fewer than 50,000.¹¹ The Census Bureau estimates that this ratio is approximately accurate for all governmental entities. Thus, of the 85,006 governmental entities, we estimate that ninety-six percent, or about 81,600, are small entities that may be affected by our rules.

6. The proposals in this *NPRM* would affect licensees of BAS (remote pickup, aural, and television), CARS, and fixed microwave services. Additionally, they affect manufacturers of equipment that supports the BAS. BAS involves a variety of transmitters, generally used to relay broadcast programming to the public (through translator and booster stations) or within the program distribution chain (from a remote news gathering unit to the studio or from the studio to the transmitter). CARS includes transmitters generally used to relay cable programming within cable television system distribution systems. The Commission has not developed a definition of small entities applicable to these licensees. Therefore, the applicable definitions of small entities for each of these services under the Small Business Administration (SBA) rules is as follows: 1. For TV BAS, we will use standard industrial classification (SIC) code 4833 (Television Broadcasting Stations) which are classified as small businesses if they have annual revenues of no more than \$10.5 million;¹² 2. For Aural BAS, we will use SIC code 4832 (Radio Broadcasting Stations) which are classified as small businesses if they have revenue of no more than \$5 million;¹³ 3. For Remote pickup BAS we will use SIC code 4833 when used by a TV station or 4832 when used by a radio station. The definition of small business for these codes has already been listed; 4. For CARS, we will use SIC code 4841 (Cable and Other Pay Television Services) which are classified as small businesses if they have annual revenue of no more than \$11 million;¹⁴ 5. For fixed microwave, we will use SIC code 4812 (Radiotelephone Communications) which are classified as small businesses if they employ no more than 1,500 people;¹⁵ 6. For BAS equipment

⁶ *Id.* at § 632.

⁷ *Id.* at § 601(4).

⁸ Department of Commerce, U.S. Bureau of the Census, 1992 Economic Census, Table 6 (special tabulation of data under contract to Office of Advocacy of the U.S. Small Business Administration).

⁹ 5 U.S.C. § 601(5).

¹⁰ 1992 Census of Governments, U.S. Bureau of the Census, U.S. Department of Commerce.

¹¹ *Id.*

¹² 13 C.F.R. § 121.201, SIC Code 4833 (NAICS code 51312).

¹³ *Id.*, SIC Code 4832 (NAICS code 513112, Radio Stations).

¹⁴ *Id.*, SIC Code 4841 (NAICS code 51322, Cable and Other Program Distribution).

¹⁵ *Id.*, SIC Code 4812 (NAICS code 513322, Cellular and Other Wireless Telecommunications).

manufacturers, we will use SIC code 3663 (Radio and Television Broadcasting and Communications Equipment) which are classified as small businesses if they employ no more than 750 people.¹⁶

7. The 1992 Census of Transportation, Communications, and Utilities, conducted by the Bureau of the Census, which is the most recent information available, shows that 715 TV broadcasting firms out of a total of 885 had less than \$10 million annual revenue,¹⁷ 4748 radio broadcasting firms¹⁸ out of a total of 4932 had less than \$5 million annual revenue,¹⁹ between 1401 and 1471 cable television firms out of a total of 1573 had less than \$11 million annual revenue,²⁰ and more than 1166 radiotelephone firms out of a total of 1178 had fewer than 1,500 employees.²¹ Similarly, the 1992 Census of Manufactures shows that between 908 and 925 out of 948 radio and television communications equipment manufacturing establishments²² had fewer than 750 employees.²³ Any of these small businesses can potentially be affected by the proposals of the *NPRM*. We seek comment on this analysis. In providing such comment, commenters are requested to provide information regarding how many total and small business entities would be affected.

D. Description of projected reporting, recordkeeping, and other compliance requirements.

8. Under the proposals contained in this *NPRM*, there are changes to reporting, recordkeeping, and other compliance requirements. In many cases, these changes streamline the existing licensing process or provide additional flexibility to licensees and applicants. Many of the proposed changes are related to the use of the Universal Licensing System (ULS) by BAS applicants and licensees. As explained in the *NPRM*, applicants for BAS stations must apply through the Wireless Telecommunications Bureau using the ULS, which was adopted by *Report and Order* in 1998.²⁴ To

¹⁶ *Id.*, SIC Code 3663 (NAICS code 33422).

¹⁷ See U.S. Bureau of the Census, U.S. Department of Commerce, 1992 Census of Transportation, Communications, and Utilities, UC92-S-1, Subject Series, Establishment and Firm Size, Table 4, Revenue Size of Firms: 1992, SIC Code 4833 (issued May 1995) (1992 Census of Communications).

¹⁸ A firm is a business organization or entity consisting of one domestic establishment (location) or more under common ownership or control. All establishments of subsidiary firms are included as part of the owning or controlling firm. For the economic census, the terms "firm" and "company" are synonymous.

¹⁹ See 1992 Census of Communications, SIC Code 4832.

²⁰ *Id.*, SIC Code 4841. The number of small businesses is characterized as a range because the threshold annual revenue determining a small business in this category is \$11 million, but the relevant census data is reported as annual revenue in the \$10 million to \$24,999,999 range.

²¹ *Id.*, Table 5, Employment Size of Firms: 1992, SIC Code 4812 (issued May 1995). The number of small businesses is not given as a definite number because the threshold number of employees determining a small business in this category is 1,500, but the relevant census data is only reported as firms with 1,000 or more employees.

²² An establishment is defined as a single physical location where manufacturing is performed. A company, on the other hand, is defined as a business organization consisting of one establishment or more under common ownership or control.

²³ U.S. Bureau of the Census, U.S. Department of Commerce, 1992 Census of Manufactures, MC92-I-36D, Industry Series, Communications Equipment, Including Radio and Television, Table 4, Industry Statistics by Employment Size of Establishment: 1992, SIC Code 3663 (issued Mar. 1995).

²⁴ See para. 74 in the *NPRM*.

comply with this system, our proposals for BAS are consistent with the decisions reached in that *Report and Order*. Accordingly, our proposals include eliminating requests made by letter if there is a standard application form which can be used instead,²⁵ modifying the rules defining major and minor changes to those used for fixed microwave systems,²⁶ and eliminating the need to report transmitter output power and requiring that all stations comply with limits on effective isotropic radiated power.²⁷ We also propose to change the period of construction for a BAS station from the currently used three years to eighteen months, consistent with the period used for fixed microwave stations.²⁸

9. Additionally, we propose to conform some of the rules that affect frequency bands that are shared among BAS licensees (Part 74), CARS licensees (Part 78), and fixed microwave licensees (Part 101). Here, we propose to update the rules that protect interference to geostationary satellites from receiving harmful interference from fixed stations to those currently listed in the ITU International Radio Regulations. The effect of this update is to expand the number of frequency bands to which these rules apply.²⁹ We also propose to adopt for BAS equipment, emission limitations that are consistent with those already being used for fixed microwave stations.³⁰ We also propose that all BAS applicants for stations operating above 944 MHz, comply with the same frequency coordination guidelines in place for fixed microwave stations.³¹

10. Further changes entail providing technical guidelines for TV studio-to-transmitter links and TV relay stations that operate on UHF-TV channels. These guidelines have always been imposed, but never codified.³² Also, with respect to BAS Remote Pickup stations, we propose to alter their channel plan to be consistent with the same channel spacing requirements as are used for Private Land Mobile Radio stations in Part 90 of our rules.³³ Finally, we propose to allow a new type of device to operate on certain VHF and UHF TV channels, wireless assist video devices. Because they are new, we propose rules for the licensing and use of these devices.³⁴ We request comment on how these requirements can be modified to reduce the burdens on small entities and still meet the objectives of this proceeding.

E. Steps Taken to Minimize Significant Economic Impact on Small Entities, and Significant Alternatives Considered.

11. The RFA requires an agency to describe any significant alternatives that it has considered in reaching its proposed approach, which may include the following four alternatives (among

²⁵ See *Id.* at para. 78.

²⁶ See *Id.* at para. 79.

²⁷ See *Id.* at para. 18.

²⁸ See *Id.* at para. 76.

²⁹ See *Id.* at para. 35.

³⁰ See *Id.* at para. 25.

³¹ See *Id.* at para.37.

³² See *Id.* at para.55.

³³ See *Id.* at para.66.

³⁴ See *Id.* at paras. 93-107.

others): (1) the establishment of differing compliance or reporting requirements or timetables that take into account the resources available to small entities; (2) the clarification, consolidation, or simplification of compliance or reporting requirements under the rule for small entities; (3) the use of performance, rather than design, standards; and (4) an exemption from coverage of the rule, or any part thereof, for small entities.³⁵

12. We have proposed to reduce burdens wherever possible. Our proposals regarding the BAS would reduce burdens on small entities. First, we have proposed to allow aural and TV BAS licensees to use digital modulation techniques in all of their allocated frequency bands. Currently, they can only use these techniques in a few bands and must file waiver requests and requests for special temporary authority (STA) to transmit digital signals in other bands. Our proposals would eliminate the need for these waivers and STAs, thus saving businesses the time it takes to prepare these requests and their associated filing fees.³⁶ Second, we have proposed to alter the equation used to determine the allowable EIRP for short path lengths. Under our proposal, there would no longer be a large drop-off in allowable EIRP when the path length of a fixed station was slightly shorter than the minimum necessary for maximum power. The effect of this would be to provide more flexibility in the way small entities design their systems. Because they would be able to use fewer sites, this would have the effect would be a reduction in the cost of a system.³⁷ Third, we have proposed to allow automatic transmit power control (ATPC). ATPC would benefit small entities by reducing outages to digital receivers and expanding battery life. Both of these effects benefit small businesses by making their systems more reliable.³⁸

13. Many of our proposed rule amendments and their benefits, stem from the use of the ULS for application filing. This system, by providing for electronic filing on standardized forms benefits small entities in several ways. Applicants can submit applications to the Commission as soon as they have the necessary information on-hand. And they can get instant feedback as to the correctness of that application; ULS will not accept the application for filing unless it is correct on its face. If there are errors, ULS will provide error messages so that the application can be corrected and resubmitted. Also, the system makes extensive use of electronic processing, so that many of the tasks that were done by hand are now done by the computer. The overall effect is that application are processed faster and licenses are issued sooner, thus allowing small entities to begin providing service in a more timely manner.³⁹

14. We have proposed rules in the *NPRM* that would conform rules for similar services that share spectrum. These are TV BAS, CARS, and the fixed microwave service. As a whole, these proposals reduce burdens to small entities because many of these entities have licenses in each of these rule parts, but must currently contend with different rules in each part. Thus, small entities will benefit because they will, in many instances, be able to comply with a common set of rules for their systems, which operate in any of the named services.⁴⁰

³⁵ 5 U.S.C. § 603(c).

³⁶ See *Id.* at para. 9.

³⁷ See *Id.* at para.13.

³⁸ See *Id.* at para.33.

³⁹ See Section III-B of *NPRM*.

⁴⁰ See Section III-C of *NPRM*.

15. Additionally, we have proposed many other changes that will benefit small entities. We have proposed to require that BAS systems prior coordinate their frequency use. Such a requirement will ensure that systems begin operating in a manner that minimizes the potential of causing interference. This protects the new system from possibly being shut down due to causing interference and protects the existing system from suffering a service disruption from receiving interference. Both of these results will benefit small entities operating in the BAS service.⁴¹ Along with the frequency coordination requirement, we have proposed to extend the ability to operate under temporary conditional authority to all BAS frequency bands. This would benefit small entities by allowing them to begin operating sooner.⁴² Further, we have proposed to extend the reach of the short-term operation rule to all entities eligible for a BAS license. This benefits small entities because many would not need to obtain additional licenses from the Commission to provide limited service a few times a year in areas in which they do not traditionally operate. Such a change would save small entities the time and money that they would otherwise expend obtaining a license.⁴³ Another proposed change entails us laying out the technical requirements for operating TV STLs or TV relay stations on UHF-TV channels. By doing this, applicants will know before applying exactly the requirements they must meet in order to obtain a license, thereby reducing the number of applications that must be returned by the Commission. Thus, small entities will benefit by not having to respond to returned applications.⁴⁴ We have also proposed to alter the channel plan for remote pickup BAS to conform to the channel plan adopted for PLMR services. Unless the same technical criteria are used for both services, different radios must be developed. Thus, our proposal would benefit small entities by keeping equipment costs down.⁴⁵ Finally, we have proposed to allow motion picture and television producers to operate a new type of device, wireless assist video devices, on certain unused VHF and UHF TV channels. This will benefit small entities by providing a more cost effective means for producers to monitor multiple camera angles when producing program material.⁴⁶

16. The regulatory burdens we have retained, such as filing applications on appropriate forms, are necessary to ensure that the public receives the benefits of new and existing services in a prompt and efficient manner. We also considered revising the burden of frequency coordination, but found that this alternative would unnecessarily increase the potential of harmful interference.⁴⁷ Additionally, under the frequency coordination procedures proposed, entities may self coordinate rather than paying a frequency coordinator.⁴⁸ We will continue to examine alternatives in the further with the objectives of eliminating unnecessary regulations and minimizing significant economic impact on small entities. We seek comment on significant alternatives commenters believe we should adopt.

⁴¹ See para. 37 in the *NPRM*.

⁴² See *Id.* at para.46.

⁴³ See *Id.* at para.50.

⁴⁴ See *Id.* at para.55.

⁴⁵ See *Id.* at para.62.

⁴⁶ See *Id.* at paras.90-107.

⁴⁷ See *Id.* at paras. 37-40

⁴⁸ 47 C.F.R. § 101.103(d).

F. Federal Rules that May Duplicate, Overlap, or Conflict With the Proposed Rules.

17. None.

APPENDIX C – Proposed Rules

Parts 1, 2, 73, 74, 78 and 101 of Chapter I of Title 47 of the Code of Federal Regulations are proposed to be amended as follows:

I. PART 1 – PRACTICE AND PROCEDURE

1. The authority citation for Part 1 continues to read as follows:

AUTHORITY: 47 U.S.C. 151, 154, 207, 303, and 309(j).

2. Section 1.901 is proposed to be revised to read as follows:

§ 1.901 Basis and purpose.

These rules are issued pursuant to the Communications Act of 1934, as amended, 47 U.S.C 151 *et seq.* The purpose of these rules is to establish the requirements and conditions under which entities may be licensed in the Wireless Radio Services as described in this part and in parts 13, 20, 22, 24, 26, 27, 74, 80, 87, 90, 95, 97 and 101 of this chapter.

3. Section 1.902 is proposed to be revised to read as follows:

§ 1.902 Scope.

In case of any conflict between the rules set forth in this subpart and the rules set forth in Parts 13, 20, 22, 24, 26, 27, 74, 80, 87, 90, 95, 97, and 101 of Title 47, Chapter I of the Code of Federal Regulations, the rules in Part 1 shall govern.

4. Section 1.929 is proposed to be amended by revising the introductory text of paragraphs (c)(4) and (d) to read as follows:

§ 1.929 Classification of filings as major or minor.

* * * * *

(c) * * *

(4) In the Private Land Mobile Radio Services (PLMRS), the remote pickup broadcast auxiliary service, and GMRS systems licensed to non-individuals:

* * * * *

(d) In the microwave, aural broadcast auxiliary, and television broadcast auxiliary services:

* * * * *

**II. PART 2 – FREQUENCY ALLOCATIONS AND RADIO TREATY MATTERS;
GENERAL RULES AND REGULATIONS**

5. The authority citation for Part 2 continues to read as follows:

AUTHORITY: 47 U.S.C. 154, 302a, 303, and 336, unless otherwise noted.

6. Amend Section 2.106, the Table of Frequency Allocations, as follows:

(a) Revising pages 25, 26, 37, and 38.

(b) Revise footnotes US11 and NG115.

The revisions read as follows:

§ 2.106 Table of frequency allocations.

* * * * *

50-123.5875 (VHF)

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International Table			United States Table		FCC Rule Part(s)
Region 1	Region 2	Region 3	Federal Government	Non-Federal Government	
See previous page for 47-68 MHz	50-54 AMATEUR S5.166 S5.167 S5.168 S5.170		50-73	50-54 AMATEUR	Amateur (97)
	54-68 BROADCASTING Fixed Mobile S5.172	54-68 FIXED MOBILE BROADCASTING		Broadcast Radio (TV) (73) Auxiliary Broadcasting (74)	
68-74.8 FIXED MOBILE except aeronautical mobile	68-72 BROADCASTING Fixed Mobile S5.173	68-74.8 FIXED MOBILE		NG115 NG128 NG149	
	72-73 FIXED MOBILE			72-73 FIXED MOBILE NG3 NG49 NG56	Public Mobile (22) Private Land Mobile (90) Personal Radio (95)
	73-74.6 RADIO ASTRONOMY S5.178			73-74.6 RADIO ASTRONOMY US74	
	74.6-74.8 FIXED MOBILE			74.6-74.8 FIXED MOBILE	Private Land Mobile (90)
S5.149 S5.174 S5.175 S5.177 S5.179		S5.149 S5.176 S5.179	US273		
74.8-75.2 AERONAUTICAL RADIONAVIGATION S5.180 S5.181			74.8-75.2 AERONAUTICAL RADIONAVIGATION S5.180		Aviation (87)
75.2-87.5 FIXED MOBILE except aeronautical mobile	75.2-75.4 FIXED MOBILE S5.179		75.2-75.4 FIXED MOBILE US273		Private Land Mobile (90)

S5.175 S5.179 S5.184 S5.187 87.5-100 BROADCASTING S5.190 100-108 BROADCASTING S5.192 S5.194 108-117.975 AERONAUTICAL RADIONAVIGATION S5.197 117.975-137 AERONAUTICAL MOBILE (R)	75.4-76 FIXED MOBILE	75.4-87 FIXED MOBILE S5.149 S5.182 S5.183 S5.188 87-100 FIXED MOBILE BROADCASTING	75.4-88	75.4-76 FIXED MOBILE NG3 NG49 NG56	Public Mobile (22) Private Land Mobile (90) Personal Radio (95)
	76-88 BROADCASTING Fixed Mobile			76-88 BROADCASTING	Broadcast Radio (TV) (73) Auxiliary Broadcasting (74)
	S5.185		NG115 NG128 NG129 NG149		
	88-100 BROADCASTING	88-108 BROADCASTING	Broadcast Radio (FM) (73) Auxiliary Broadcasting (74)		
			US93	US93 NG2 NG128 NG129	
108-117.975 AERONAUTICAL RADIONAVIGATION			108-117.975 AERONAUTICAL RADIONAVIGATION		Note: The <i>NTIA Manual</i> (footnote G126) states that differential GPS stations may be authorized in the 108-117.975 MHz band, but the FCC has not yet addressed this footnote.
			US93		
S5.111 S5.198 S5.199 S5.200 S5.201 S5.202 S5.203 S5.203A S5.203B			117.975-121.9375 AERONAUTICAL MOBILE (R) S5.111 S5.199 S5.200 591 US26 US28		Aviation (87)
			121.9375-123.0875	121.9375-123.0875 AERONAUTICAL MOBILE	
			591 US30 US31 US33 US80 US102 US213	591 US30 US31 US33 US80 US102 US213	
			123.0875-123.5875 AERONAUTICAL MOBILE S5.200 591 US32 US33 US112		
			See next page for 123.5875-137 MHz		See next page for 123.5875-137 MHz

470-849 MHz (UHF)

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International Table			United States Table		FCC Rule Part(s)	
Region 1	Region 2	Region 3	Federal Government	Non-Federal Government		
470-790 BROADCASTING	470-512 BROADCASTING Fixed Mobile S5.292 S5.293	470-585 FIXED MOBILE BROADCASTING S5.291 S5.298	470-608	470-512 FIXED NG127 BROADCASTING LAND MOBILE NG66 NG114 NG115 NG128 NG149	Public Mobile (22) Broadcast Radio (TV) (73) Auxiliary Broadcasting (74) Private Land Mobile (90)	
	512-608 BROADCASTING S5.297			512-608 BROADCASTING NG115 NG128 NG149	Broadcast Radio (TV) (73) Auxiliary Broadcasting (74)	
	608-614 RADIO ASTRONOMY Mobile-satellite except aeronautical mobile-satellite (Earth-to-space)	S5.149 S5.305 S5.306 S5.307		608-614 LAND MOBILE US350 RADIO ASTRONOMY US74 US246		Personal (95)
	614-806 BROADCASTING Fixed Mobile			614-890 FIXED MOBILE BROADCASTING	614-890	
				698-746 BROADCASTING NG115 NG128 NG149	Broadcast Radio (TV) (73) Auxiliary Broadcast. (74) Note: Band to be reallocated and auctioned by Sept. 30, 2002.	

S5.149 S5.291A S5.294 S5.296 S5.300 S5.302 S5.304 S5.306 S5.311 S5.312				746-764 FIXED MOBILE BROADCASTING	Wireless Communications (27) Broadcast Radio (TV) (73) Auxiliary Broadcast. (74) Private Land Mobile (90)
				NG115 NG128 NG159	
790-862 FIXED BROADCASTING				764-776 FIXED MOBILE	Auxiliary Broadcasting (74) Private Land Mobile (90)
				NG115 NG128 NG158 NG159	
				776-794 FIXED MOBILE BROADCASTING	Wireless Communications (27) Broadcast Radio (TV) (73) Auxiliary Broadcast. (74) Private Land Mobile (90)
				NG115 NG128 NG159	
				794-806 FIXED MOBILE	Auxiliary Broadcasting (74) Private Land Mobile (90)
				NG115 NG128 NG158 NG159	
				806-821 FIXED LAND MOBILE	Public Mobile (22) Private Land Mobile (90)
				NG30 NG31 NG43 NG63 NG115	
				821-824 LAND MOBILE	Private Land Mobile (90)
				NG30 NG43 NG63	
				824-849 FIXED LAND MOBILE	Public Mobile (22)
				NG30 NG43 NG63 NG151	
See next page for 862-890 MHz				See next page for 849-894 MHz	See next page for 866-896 MHz
	S5.293 S5.309 S5.311				
	806-890 FIXED MOBILE BROADCASTING				
S5.312 S5.314 S5.315 S5.316 S5.319 S5.321					
	S5.317 S5.318	S5.149 S5.305 S5.306 S5.307 S5.311 S5.320			

* * * * *

UNITED STATES (US) FOOTNOTES

* * * * *

US11 The use of the frequencies 166.25 and 170.15 MHz may be authorized to non-Government remote pickup broadcast base and land mobile stations and to non-Government base, fixed and land mobile stations in the public safety radio services (the sum of the bandwidth of emission and tolerance is not to exceed 12.5 kHz, except that authorizations in existence as of January 1, 2002, using 25 kHz bandwidth are permitted to continue in operation until January 1, 2005) in the lower 48 contiguous States only, except within the area bounded on the west by the Mississippi River, on the north by the parallel of latitude 37° 30' N., and on the east and south by that arc of the circle with center at Springfield, Illinois, and radius equal to the airline distance between Springfield, Illinois, and Montgomery, Alabama, subtended between the foregoing west and north boundaries, on the condition that harmful interference shall not be caused to Government stations present or future in the Government band 162-174 MHz. The use of these frequencies by remote pickup broadcast stations shall not be authorized for locations within 150 miles of New York City; and use of these frequencies by the public safety radio services will not be authorized except for locations within 150 miles of New York City. As an exception to the secondary status of all other non-Government stations operating on the frequencies 166.25 and 170.15 MHz, non-Government remote pickup broadcast base stations operating as an integral part of the Emergency Alert System shall have primary status.

* * * * *

NON-FEDERAL GOVERNMENT (NG) FOOTNOTES

* * * * *

NG115 In the bands 54-72 MHz, 76-88 MHz, 174-216 MHz, 470-608 MHz, and 614-806 MHz, wireless microphones and wireless assist video devices may be authorized on a non-interference basis, subject to the terms and conditions set forth in 47 C.F.R. part 74, subpart H.

* * * * *

III. PART 73 – RADIO BROADCAST SERVICES

7. The authority citation for Part 73 continues to read as follows:

AUTHORITY: 47 U.S.C. 154, 303, 3334, and 336.

8. Section 73.3500 is proposed to be amended by removing the entries for Forms 313 and 313-R from the table in paragraph (a) and adding an entry for Forms 601 and 603 to read as follows:

§ 73.3500 Application and report forms.

(a) * * *

Form Number	Title
* * * * *	* * * * *
601	FCC Application for Wireless Telecommunications Bureau Radio Service Authorization
603	FCC Wireless Telecommunications Bureau Application for Assignments of Authorization and Transfers of Control

* * * * *

9. Section 73.3533 is proposed to be amended by removing and reserving paragraph (a)(3) to read as follows:

§ 73.3533 Application for construction permit or modification of construction permit.

(a) * * *

(3) [Reserved]

* * * * *

10. Section 73.3536 is proposed to be amended by removing and reserving paragraph (b)(3) to read as follows:

§ 73.3536 Application for license to cover construction permit.

(b) * * *

(3) [Reserved]

* * * * *

11. Section 73.3598 is proposed to be amended by revising paragraph (a) to read as follows:

§ 73.3598 Period of construction.

(a) Each original construction permit for the construction of a new TV, AM, FM or International Broadcast; low power TV; TV translator; TV booster; FM translator; or FM booster, or to make changes

in such existing stations, shall specify a period of three years from the date of issuance of the original construction permit within which construction shall be completed and application for license filed.

* * * * *

IV. PART 74 – EXPERIMENTAL RADIO, AUXILIARY, SPECIAL BROADCASTING AND OTHER PROGRAM DISTRIBUTIONAL SERVICES

12. The authority citation for Part 74 continues to read as follows:

AUTHORITY: 47 U.S.C. 154, 303, 307, and 554.

13. Section 74.5 is proposed to be amended by redesignating paragraphs (a)(4) through (a)(6) as paragraphs (a)(5) through (a)(7), adding a new paragraph (a)(4), and adding a new paragraph (f) to read as follows:

§ 74.5 Cross reference to rules in other parts.

* * * * *

(a) * * *

(4) Subpart F, “Wireless Telecommunications Services Applications and Proceedings”. (§§ 1.901 to 1.981).

* * * * *

(f) Part 101, “Fixed Microwave Services”.

14. A new Section 74.6 is proposed to be added to read as follows:

§ 74.6 Licensing of broadcast auxiliary and low power auxiliary stations.

Applicants for and licensees of remote pickup broadcast stations, aural broadcast auxiliary stations, television broadcast auxiliary stations, and low power auxiliary stations authorized under subparts D, E, F, and H of this part are subject to the application and procedural rules for wireless telecommunications services contained in part 1, subpart F of this chapter.

15. Section 74.15 is proposed to be amended by revising the second sentence and deleting the last sentence of paragraph (f) to read as follows:

§ 74.15 Station license period.

* * * * *

(f) * * * An application for renewal of license shall be filed in accordance with the provisions of § 1.949.

* * * * *

16. Section 74.24 is proposed to be amended by revising the introductory text and paragraphs (a), (d), (f), (g), and the last two sentences of paragraph (i), by adding a new sentence to the end of paragraph (h)(1), and by removing the Note after paragraph (g) to read as follows:

§ 74.24 Short term operation.

All classes of broadcast auxiliary stations provided for in subparts D, E, F and H of this part, except wireless video assist devices, may be operated on a short-term basis under the authority conveyed

by a Part 73 license or a broadcast auxiliary license without prior authorization from the FCC, subject to the following conditions:

(a) Licensees operating under this provision must be eligible to operate the particular class of broadcast auxiliary station.

* * * * *

(d) Short-term operation under this section shall not exceed 720 hours annually per frequency.

Note: Certain frequencies shared with other services which are normally available for permanent broadcast auxiliary station assignment may not be available for short-term operation. Refer to any note(s) which may be applicable to the use of a specific frequency prior to initiating operation.

* * * * *

(f) Stations operated pursuant to this section shall be identified by the transmission of the call sign of the associated Part 73 broadcast station or broadcast auxiliary station.

(g) Prior to operating pursuant to the provisions of this section, licensees shall, for the intended location or area-of-operation, notify the appropriate frequency coordination committee or any licensee(s) assigned the use of the proposed operating frequency, concerning the particulars of the intended operation and shall provide the name and telephone number of a person who may be contacted in the event of interference. Except as provided below, this notification provision shall not apply where an unanticipated need for immediate short-term mobile station operation would render compliance with the provisions of this paragraph impractical.

(1) A CARS licensee shall always be given advance notification prior to the commencement of short-term operation on or adjacent to an assigned frequency.

(2) The Commission may designate a frequency coordinator as the single point of contact under this section for advance coordination of major national and international events. Once designated, all short-term auxiliary broadcast use under this section must be coordinated in advance through the designated coordinator.

(i) Coordinators under this provision will not be designated unless the Commission receives a request to designate a coordinator.

(ii) The Commission will issue a Public Notice with information regarding the designation of such a coordinator.

(iii) All coordination must be done on a non-discriminatory basis.

(iv) All licensees must abide by the decision of the coordinator. The Commission will be the final arbiter of any disputes.

(3) An unanticipated need will never be deemed to exist for a scheduled event, such as a convention, sporting event, etc.

(h) * * *

(1) * * * See § 1.928(e) of this chapter for a definition of Line A and Line C.

* * * * *

(i) * * * It shall simply be necessary for the licensee to contact the potentially affected agency and obtain advance approval for the proposed short-term operation. Where protection to FCC monitoring stations is concerned, approval for short-term operation may be given by the District Director of a Commission field facility.

* * * * *

17. A new Section 74.25 is proposed to be added to read as follows:

§ 74.25 Temporary conditional operating authority.

An applicant for a new broadcast auxiliary radio service station or a modification of an existing station under subparts D, E, F, or H of this part may operate the proposed station during the pendency of its applications upon the filing of a properly completed formal application that complies with the rules for the particular class of station, provided that the conditions set forth below are satisfied.

(a) Conditions applicable to all broadcast auxiliary stations.

(i) Stations operated pursuant to this section shall be identified by the transmission of the call sign of the associated Part 73 broadcast station, if one exists, or the prefix "WT" followed by the applicant's local business telephone number for broadcast or cable network entities.

(ii) The antenna structure(s) has been previously studied by the Federal Aviation Administration and determined to pose no hazard to aviation safety as required by subpart B of part 17 of this chapter; or the antenna or tower structure does not exceed 6.1 meters above ground level or above an existing man-made structure (other than an antenna structure), if the antenna or tower has not been previously studied by the Federal Aviation Administration and cleared by the FCC;

(iii) The grant of the application(s) does not require a waiver of the Commission's rules;

(iv) The applicant has determined that the facility(ies) will not significantly affect the environment as defined in § 1.1307 of this chapter;

(v) The station site does not lie, within a radio "Quiet Zone" identified in § 1.924 of this chapter.

(b) Conditions applicable to remote pickup broadcast auxiliary stations.

(i) The auxiliary station must be located within 80 km (50 mi) of the broadcast studio or broadcast transmitter.

(ii) The applicant must coordinate the operation with all affected co-channel and adjacent channel licensees in the area of operation. This requirement can be satisfied by coordination with the local frequency committee if one exists.

(iii) Operation under this provision is not permitted between 152.87 MHz and 153.35 MHz.

(c) Conditions applicable to aural and television broadcast auxiliary stations.

(i) The applicable frequency coordination procedures have been successfully completed and the filed application is consistent with that coordination.

- (ii) The station site does lie within an area requiring international coordination.
- (iii) If operated on frequencies in the 17.8-19.7 GHz band, the station site does not lie within any of the areas identified in § 1.924 of this chapter.
- (d) Operation under this section shall be suspended immediately upon notification from the Commission or by the District Director of a Commission field facility, and shall not be resumed until specific authority is given by the Commission or District Director. When authorized by the District Director, short test operations may be made.
- (e) Conditional authority ceases immediately if the application(s) is returned by the Commission because it is not acceptable for filing.
- (f) Conditional authorization does not prejudice any action the Commission may take on the subject application(s). Conditional authority is accepted with the express understanding that such authority may be modified or cancelled by the Commission at any time without hearing if, in the Commission's discretion, the need for such action arises. An applicant operating pursuant to this conditional authority assumes all risks associated with such operation, the termination or modification of the conditional authority, or the subsequent dismissal or denial of its application(s).

18. Section 74.34 is proposed to be added to read as follows:

§ 74.34 Period of construction; certification of completion of construction.

- (a) Each aural and television broadcast auxiliary station authorized under subparts E and F of this part must be in operation within 18 months from the initial date of grant.
- (b) Each remote pickup broadcast auxiliary station authorized under subpart D of this part must be in operation within 12 months from the initial date of grant.
- (c) Failure to timely begin operation means the authorization terminates automatically.
- (d) Requests for extension of time may be granted upon a showing of good cause pursuant to § 1.946(e) of this chapter.
- (e) Construction of any authorized facility or frequency must be completed by the date specified in the license as pursuant to § 1.946 of this chapter.

19. Section 74.402 is proposed to be revised to read as follows:

§ 74.402 Frequency assignment.

Operation on all channels listed in this section (except: 26.07, 26.11, 26.45, 450.01, 450.02, 450.98, 450.99, 455.01, 455.02, 455.98, and 455.99 MHz) shall be in accordance with the "priority of use" provisions in § 74.403(b). The channel will be assigned by its center frequency, channel bandwidth, and emission designator. In general, the frequencies listed in this section represent the center of the channel or channel segment. When an even number of channels are stacked in those sections stacking is permitted, channel assignments may be made for the frequency halfway between those listed.

- (a) The following channels (except 1606, 1622, and 1646 kHz) may be assigned for use by broadcast remote pickup stations using any emission (other than single sideband or pulse) that will be in accordance with the provisions of § 74.462.

(1) MF Channels: 1606, 1622, and 1646 kHz. The channel 1606 kHz is subject to the condition listed in paragraph (e)(1) of this section.

(2) HF Channels: 25.87, 25.91, 25.95, 25.99, 26.03, 26.07, 26.09, 2.611, 26.13, 26.15, 26.17, 26.21, 26.23, 26.25, 26.27, 26.29, 26.31, 26.33, 26.35, 26.37, 26.39, 26.41, 26.43, 26.45, and 26.47 MHz. The channels 25.87-26.09 MHz are subject to the condition listed in paragraph (e)(2) of this section.

(3) VHF Channels: 166.25 and 170.15 MHz. These channels are subject to the condition listed in paragraph (e)(8) of this section.

(4) UHF Channels: 450.01, 450.02, 450.98, 450.99, 455.01, 455.02, 455.98, 455.99 MHz. These channels are subject to the condition listed in paragraph (e)(9) of this section.

(b) Up to four of the following 7.5 kHz VHF segments and up to eight of the following 6.25 kHz UHF segments may be stacked to form a channel which may be assigned for use by broadcast remote pickup stations using any emission contained within the resultant channel in accordance with the provisions of § 74.462.

(1) VHF segments: 152.8625, 152.870, 152.8775, 152.885, 152.8925, 152.900, 152.9075, 152.915, 152.9225, 152.930, 152.9375, 152.945, 152.9525, 152.960, 152.9675, 152.975, 152.9825, 152.990, 152.9975, 153.005, 153.0125, 153.020, 153.0275, 153.035, 153.0425, 153.050, 153.0575, 153.065, 153.0725, 153.080, 153.0875, 153.095, 153.1025, 153.110, 153.1175, 153.125, 153.1325, 153.140, 153.1475, 153.155, 153.1625, 153.170, 153.1775, 153.185, 153.1925, 153.200, 153.2075, 153.215, 153.2225, 153.230, 153.2375, 153.245, 153.2525, 153.260, 153.2675, 153.275, 153.2825, 153.290, 153.2975, 153.305, 153.3125, 153.320, 153.3275, 153.335, 153.3425, 153.350, and 153.3575. These channels are subject to the conditions listed in paragraphs (e) (3), (4), and (5) of this section.

(2) VHF segments: 160.860, 160.8675, 160.875, 160.8825, 160.890, 160.8975, 160.905, 160.9125, 160.920, 160.9275, 160.935, 160.9425, 160.950, 160.9575, 160.965, 160.9725, 160.980, 160.9875, 160.995, 161.0025, 161.010, 161.0175, 161.025, 161.0325, 161.040, 161.0475, 161.055, 161.0625, 161.070, 161.0775, 161.085, 161.0925, 161.100, 161.1075, 161.115, 161.1225, 161.130, 161.1375, 161.145, 161.1525, 161.160, 161.1675, 161.175, 161.1825, 161.190, 161.1975, 161.205, 161.2125, 161.220, 161.2275, 161.235, 161.2425, 161.250, 161.2575, 161.265, 161.2725, 161.280, 161.2875, 161.295, 161.3025, 161.310, 161.3175, 161.325, 161.3325, 161.340, 161.3475, 161.355, 161.3625, 161.370, 161.3775, 161.385, 161.3925, 161.400. These channels are subject to the condition listed in paragraph (e)(6) of this section.

(3) VHF segments: 161.625, 161.6325, 161.640, 161.6475, 161.655, 161.6625, 161.670, 161.6775, 161.685, 161.6925, 161.700, 161.7075, 161.715, 161.7225, 161.730, 161.7375, 161.745, 161.7525, 161.760, 161.7675, 161.775. These channels are subject to the conditions listed in paragraphs (e)(4) and (7) of this section.

(4) UHF segments: 450.03125, 450.0375, 450.04375, 450.050, 450.05625, 450.0625, 450.06875, 450.075, 450.08125, 450.0875, 450.09375, 450.100, 450.10625, 450.1125, 450.11875, 450.125, 450.13125, 450.1375, 450.14375, 450.150, 450.15625, 450.1625, 450.16875, 450.175, 450.18125, 450.1875, 450.19375, 450.200, 450.20625, 450.2125, 450.21875, 450.225, 450.23125, 450.2375, 450.24375, 450.250, 450.25625, 450.2625, 450.26875, 450.275, 450.28125, 450.2875, 450.29375, 450.300, 450.30625, 450.3125, 450.31875, 450.325, 450.33125, 450.3375, 450.34375, 450.350, 450.35625, 450.3625, 450.36875, 450.375, 450.38125, 450.3875, 450.39375, 450.400, 450.40625, 450.4125, 450.41875, 450.425, 450.43125, 450.4375, 450.44375, 450.450, 450.45625, 450.4625, 450.46875, 450.475, 450.48125, 450.4875, 450.49375, 450.500, 450.50625, 450.5125, 450.51875, 450.525, 450.53125, 450.5375, 450.54375, 450.550, 450.55625, 450.5625, 450.56875,